

| Item | Qty -247 | Qty -247B | Part Number | Description |
|------|-------------|--------------|-------------------|---|
| 1 | X | | D212-664-247 | CROSSTUBE ASSEMBLY (205/212 LOW AFT) |
| 2 | | X | D212-664-247B | CROSSTUBE ASSEMBLY (214 LOW AFT) |
| 3 | 1 | 1 | D6008-132 | CROSSTUBE |
| 4 | 2 | | D2940-1 | SUPPORT |
| 5 | 4 | 4 | D3595-063-530 | RUBBER CUSHION |
| 6 | 2 | 2 | D3660-1 | CUFF |
| 7 | | 2 | D5018-1 | SUPPORT |
| 8 | 4 | 4 | MS21920-28 | CLAMP (OR MS21920-30) |
| 9 | 44 | 44 | CR3212-4-06 | RIVET (OR M7885/3-4-06) |
| 10 | A/R | A/R | PROSEAL 890 B-2 | SEALANT, AMS-S-8802 CLASS B-2 |
| 11 | A/R | A/R | SIKAFLEX-241/-291 | SEALANT (OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT) |

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6008-132
FINISHED LENGTH = 128.268±0.020 (BEFORE BENDING/TRIMMING)
- 2) FINISH: a) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
b) PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
c) APPLY MATTE CLEAR COAT TO UNDERSIDE OF CROSSTUBE PER DART QSI 005 4.2
d) MASK UNDERSIDE OF CROSSTUBE AS SHOWN (ZN C6-2 / C6-3, HATCHED AREA)
e) PAINT OUTSIDE PER DART QSI 005 4.2
f) AFTER PAINTING, REMOVE MASKING
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: D212-664-247/-247B = 36.6 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

MACHINING

- 10) WHEN MACHINING TAPER, RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.

BENDING

- 11) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D., EXCEPT UP TO 10% IS ALLOWED IN AREA NOTED.
- 12) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.

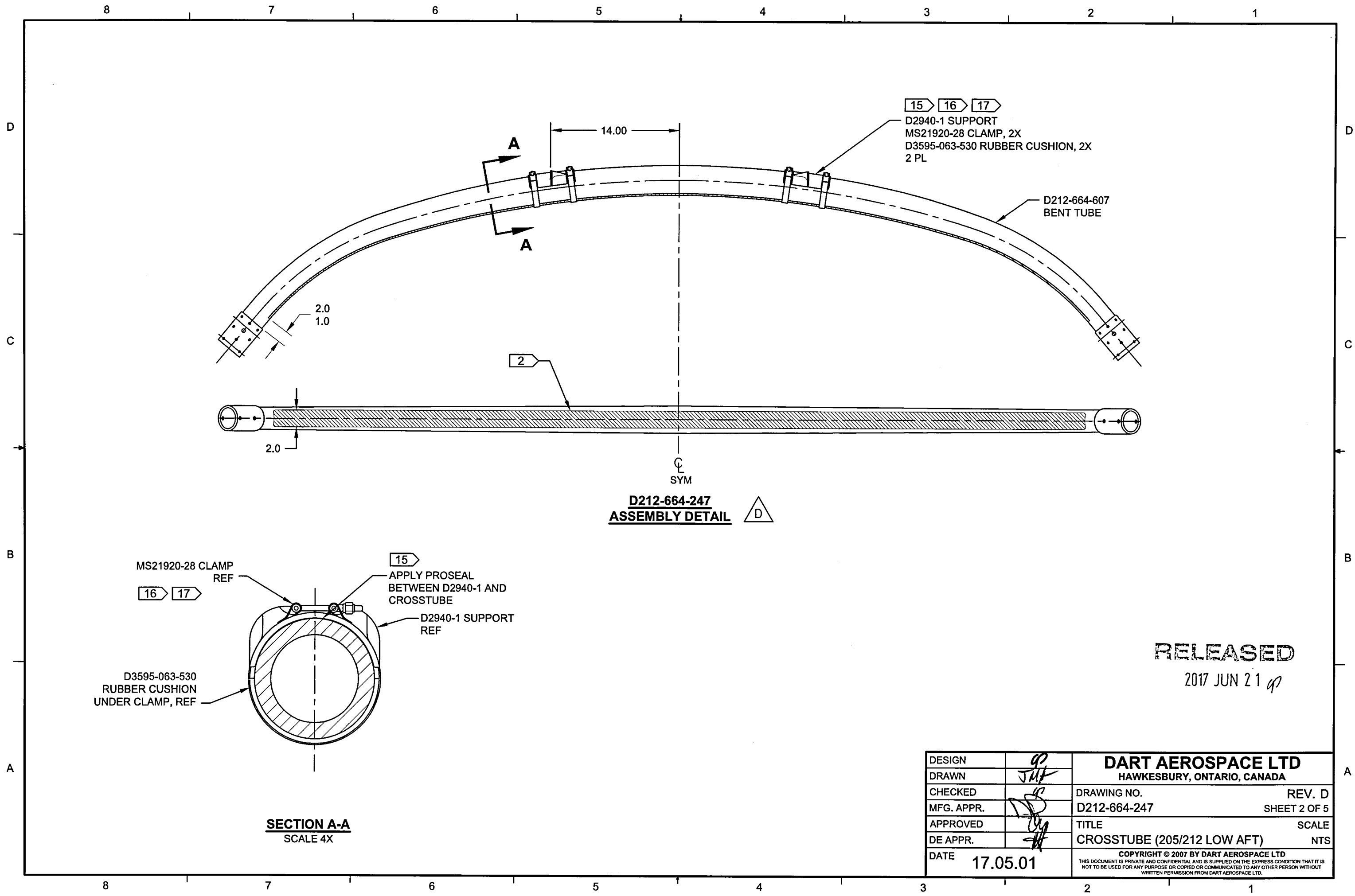
ASSEMBLY

- 13) INSTALL D3660-1 CUFF AFTER CHEMICAL CONVERSION COAT BUT BEFORE PAINT, WITH A LAYER OF SIKAFLEX-241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT BETWEEN CUFF AND CROSSTUBE. SEAL EDGE OF CUFF TO ENSURE NO GAPS.
- 14) TOUCH-UP HOLES WITH CHEMICAL CONVERSION COAT.
- 15) TO INSTALL D2940-1 / D5018-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 16) INSTALL MS21920-28 CLAMPS (OR -30) WITH D3595-063-530 RUBBER CUSHIONS TO SECURE THE SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE ON TOP SIDE OF SUPPORT.
- 17) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

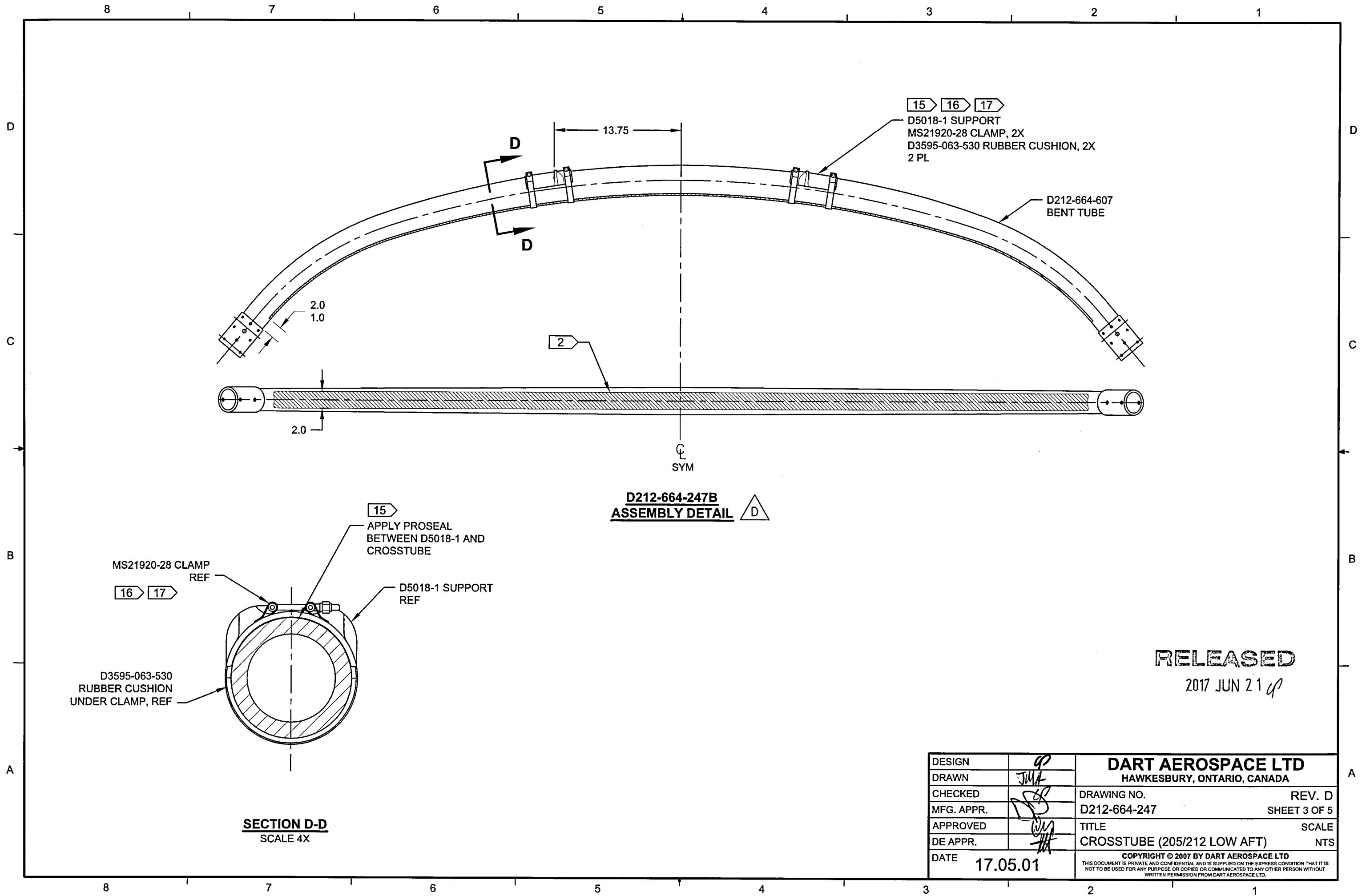
| | | | |
|------------|---|--|--------------|
| D | NOTE 2: ADD INSPECTION WINDOW (PAR17-601), SHEET 2: UPDATE ASSEMBLY DETAIL, SHEET 3: UPDATE ASSEMBLY DETAIL | JMH | 17.05.01 |
| C | D5018-1 WAS D2940-1 (-247B), PROSEAL WAS MAGNOBOND, ADD SHEET 3, NOTE 17: ADD 72HR CURE & RETORQUE, CLAMPS REVERSED TO PREVENT CHAFING (ZN B7-2, B7-3), INCORP. DEO B-1 | CP | 14.04.01 |
| B | REVISE GENERAL NOTES/PART LIST; UPDATE TO CURRENT STANDARDS; ADD -247B (ZN C4-2, D5-2) | RF | 09.09.30 |
| A | NEW ISSUE | CP | 07.07.07 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWN | | | |
| CHECKED | | DRAWING NO. | REV. D |
| MFG. APPR. | | D212-664-247 | SHEET 1 OF 5 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | CROSSTUBE (205/212 LOW AFT) | NTS |
| DATE | 17.05.01 | COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | |

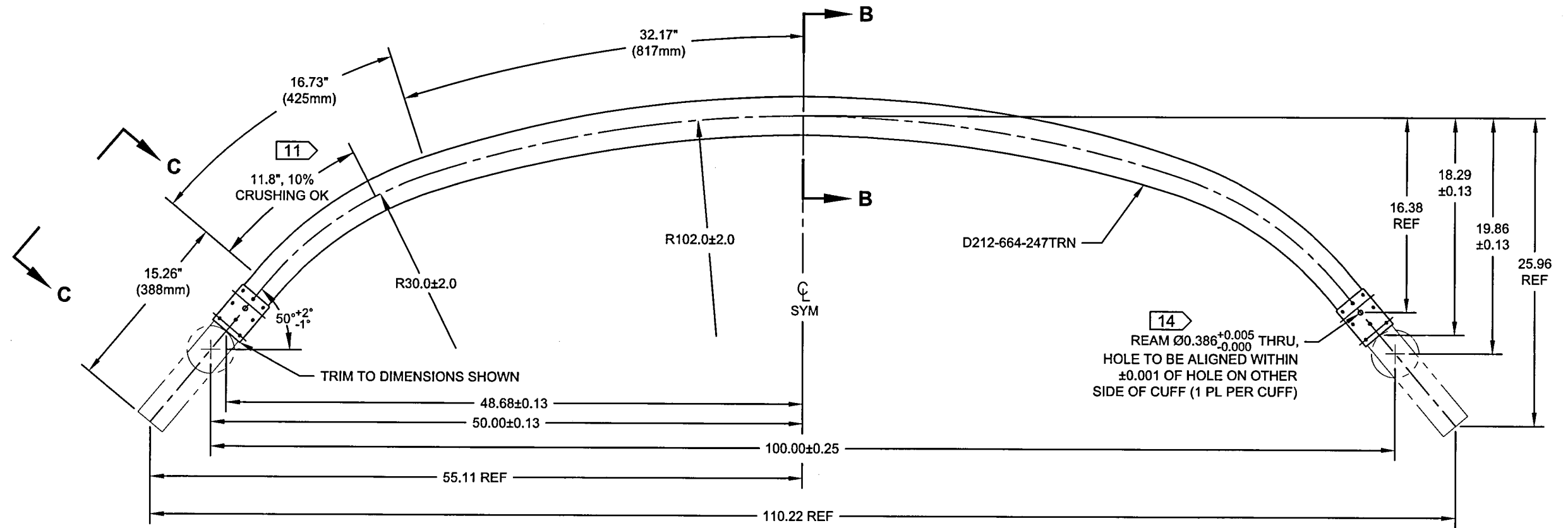
RELEASED

2017 JUN 21
ECN17-593

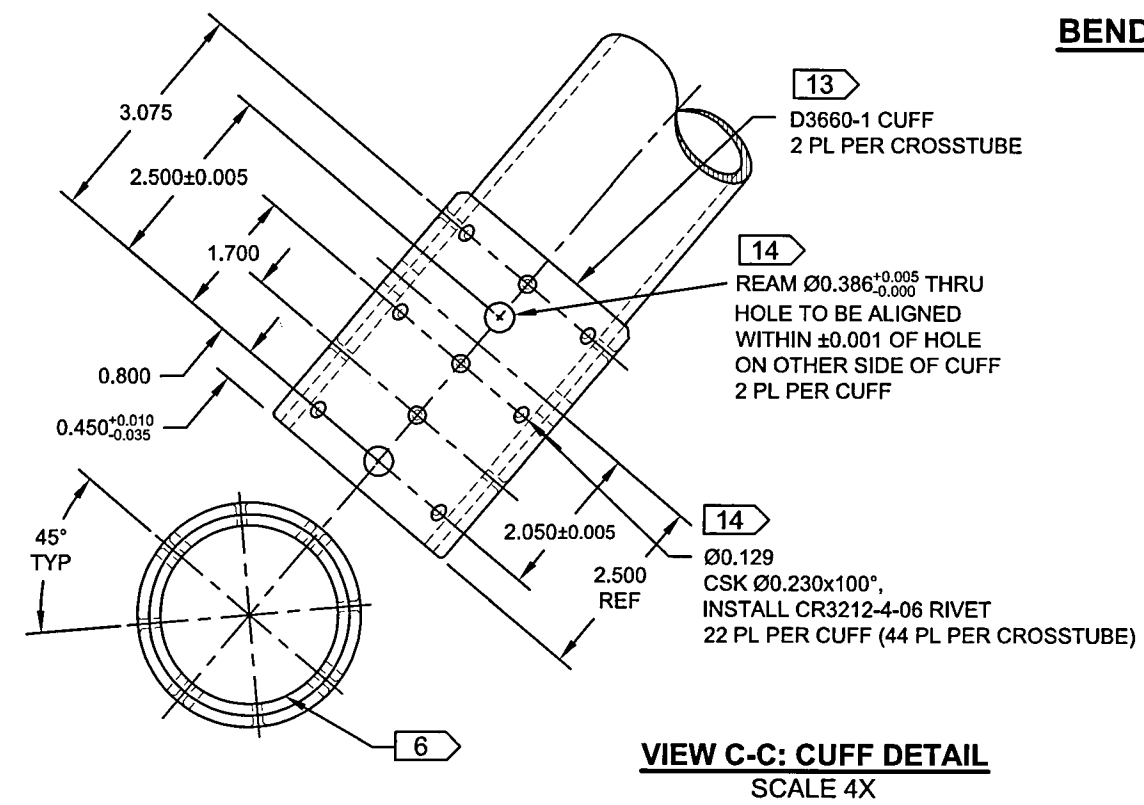


| | | | |
|------------|-----------|--|--------------|
| DESIGN | <i>qp</i> | DART AEROSPACE LTD | |
| DRAWN | <i>JH</i> | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | <i>SS</i> | DRAWING NO. | REV. D |
| MFG. APPR. | <i>SS</i> | D212-664-247 | SHEET 2 OF 5 |
| APPROVED | <i>SS</i> | TITLE | SCALE |
| DE APPR. | <i>SS</i> | CROSSTUBE (205/212 LOW AFT) | NTS |
| DATE | 17.05.01 | COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | |

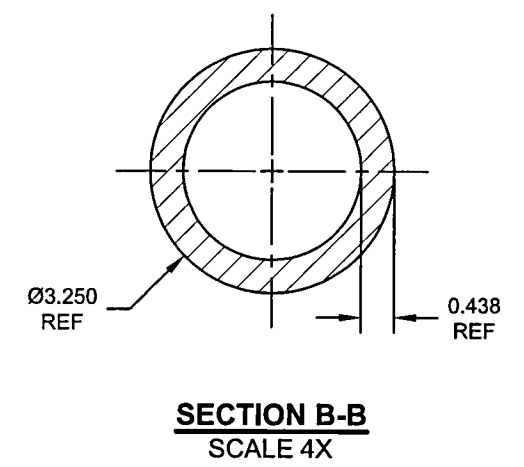




D212-664-607
BENDING AND DRILLING DETAIL 11



VIEW C-C: CUFF DETAIL
 SCALE 4X



SECTION B-B
 SCALE 4X

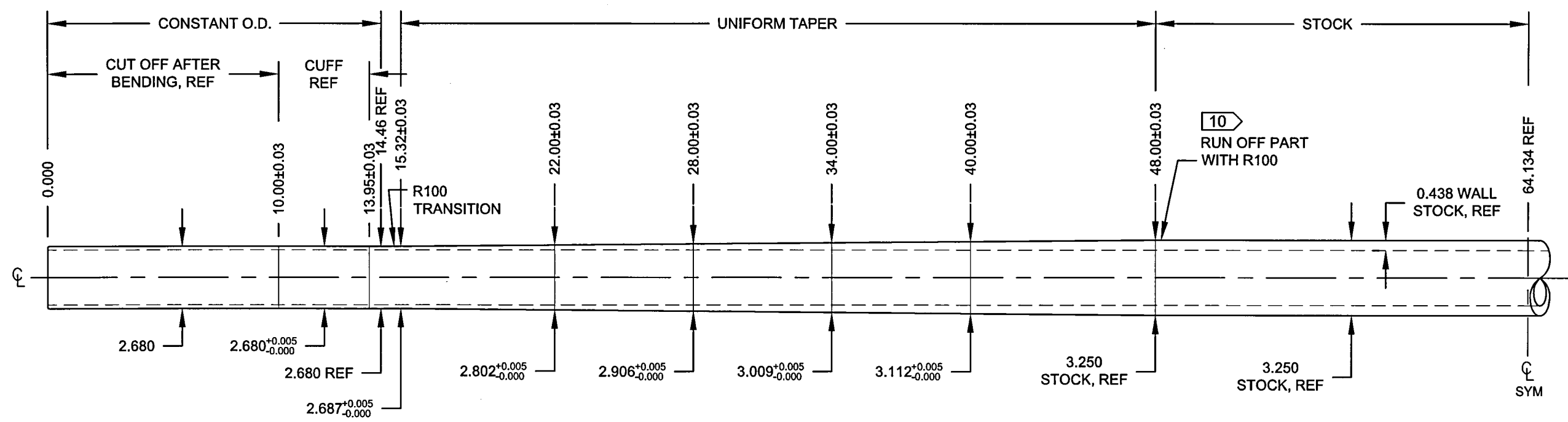
RELEASED
 2017 JUN 21 *up*

| | | | |
|------------|------------|---|--------------|
| DESIGN | <i>JP</i> | DART AEROSPACE LTD | |
| DRAWN | <i>JMT</i> | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | <i>JS</i> | DRAWING NO. | REV. D |
| MFG. APPR. | <i>JS</i> | D212-664-247 | SHEET 4 OF 5 |
| APPROVED | <i>JS</i> | TITLE | SCALE |
| DE APPR. | <i>JS</i> | CROSSTUBE (205/212 LOW AFT) | NTS |
| DATE | 17.05.01 | COPYRIGHT © 2007 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> | |

8 7 6 5 4 3 2 1

D

D



D212-664-247TRN
TURNING DETAIL

RELEASED
2017 JUN 21

B

B

A

A

| | | | |
|------------|----------|---|--------------|
| DESIGN | JMF | DART AEROSPACE LTD | |
| DRAWN | JMF | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | JB | DRAWING NO. | REV. D |
| MFG. APPR. | JB | D212-664-247 | SHEET 5 OF 5 |
| APPROVED | JB | TITLE | SCALE |
| DE APPR. | JB | CROSSTUBE (205/212 LOW AFT) | NTS |
| DATE | 17.05.01 | COPYRIGHT © 2007 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> | |

8 7 6 5 4 3 2 1